

Appl. No. 10/789093

REMARKS

The following remarks are in response to the Office Action mailed on January 26, 2005. Upon entrance of the amendments set out above, claims 1-29, 31, 39-44, 46-64, and 79-82 remain pending in this application.

Claims 1-31, 39-44, 46-74, and 79 were rejected under obviousness-type double patenting over the claims 1-67 of U.S. Patent No. 6,723,957. Claims 29, 39, 40, 59 and 79 were rejected under 35 U.S.C. 102(b) as being anticipated by Mita et al. (5,225,660). Claims 19-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraoka et al; (200110047988). Claims 30,31,41-44,60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Woodacre (4,092,517). Claims 65-67 were rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445). Claims 24-26 and 71-73 were rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445) and Hiraoka et al. Claim 74 was rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445) and Woodacre (4,092,517). Response is hereby made to these rejections.

Claims 80-82 are allowable over the prior art of record. Applicant's thank the Examiner for the indication of allowable subject matter.

Claims 1-31, 39-44, 46-74, and 79 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-67 of U.S. Patent No. 6,723,957. A terminal disclaimer is hereby enclosed. Thus, this rejection should be withdrawn. This was the only rejection of claims 1-18, 22, 23, 27, 28, 46-58 and 64. Thus these claims should be allowed.

Appl. No. 10/789093

Claims 29, 39, 40, 59 and 79 were rejected under 35 U.S.C. 102(b) as being anticipated by Mita et al. (5,225,660). Claims 29, 39, 59 and 79 have been amended to include the limitation of a frequency of between 30Hz and 120Hz. Applicants respectfully submit this is not shown in the prior art. While the Examiner rejected claim 25, nothing was cited to show this frequency range. Thus, claim 29 (and dependent claims 30-31), 39 (and dependent claims 40-42), 59 (and dependent claim 60) and 79 are allowable.

Claims 19-21 were rejected under 35 U.S.C. 103(a) as being unpatentable over Hiraoka et al; (200110047988). Claim 19 has been amended to include the limitation of a frequency of between 30Hz and 120Hz. Applicants respectfully submit this is not shown in the prior art. Thus, claim 19, and dependent claims 20-21 are allowable.

Claims 30, 31, 41-44, 60-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Woodacre (4,092,517). The Examiner held it would have been obvious to have used an initially negative start period as claimed for the system of Mita et al. (5,225,660), the motivation being the teachings of Woodacre that such is advantageous for a pulsating a.c. power supply (see figures 3a - 3g in Woodacre and the discussion thereof).

Claims 30 and 31, 41 and 42, and 60 are patentable for the reason given above with respect to claims 29, 39 and 59, from which they respectively depend.

Claims 43, 61 and 63 have been amended to include the limitation of a frequency of between 30Hz and 120Hz. Applicants respectfully submit this is not shown in the prior art. Thus, claims 43 (and dependent claim 44), 61 (and dependent claim 62) and 63 are allowable.

Appl. No. 10/789093

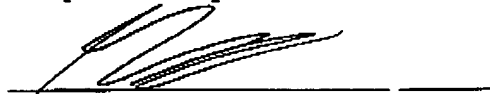
Claims 24-26 and 71-73 were rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445) as applied above and further in view of Hiraoka et al. Claims 24-26 are patentable for the reason given above with respect to claims 19 from which they depend. Claims 71-73 have been cancelled.

Claims 65-67 were rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445). Claims 65-67 have been cancelled.

Claim 74 was rejected under 35 U.S.C. 103(a) as being unpatentable over Mita et al. (5,225,660) taken with Ogasawara et al. (5,990,445) as applied above, and further in view of Woodacre (4,092,517). Claim 74 has been cancelled.

Accordingly, in view of the above amendments and remarks, Applicants respectfully submit that the application should be allowed. The Examiner is invited to telephone the undersigned below if it will aid in the prosecution of this application.

Respectfully Submitted



George R. Corrigan, Reg. No. 34,803
Corrigan Law Office
5 Briarcliff Court
Appleton, WI 54915
(920) 954-1099

*DN:F:\WP51\DOCS\ITW\12843.60\12843.60response1.wpd Tuesday, April 26, 2005 5:10PM